Institut for Matematik og Datalogi
Syddansk Universitet

September 6, 2011
JFB

Introduction to Computer Science
E11 – Lecture 4

Lecture, September 6, 8:15–10

We finished chapter 1.

Lecture, September 8, 12:15–14, U26

We will cover chapter 2 of the textbook and begin on chapter 3.

Lecture, September 13, 8:15–10, U26

We will cover up through section 3.4 in the textbook (we will cover section 3.5 later, along with some other security-related topics).

Assignment 2 due 12:15, September 22

Late assignments will not be accepted. Working together is not allowed. (You may write this either in English or Danish.) Explain your answers (show your work).

Write your solution to this assignment in LaTeX. Turn in both the LaTeX code (which could be included in a section or appendix of your document) and the output you get from it. Submit a PDF file through the Blackboard system and turn in an identical paper copy. Write your full name and your section number clearly on the first page of your assignment.

1. Convert 11010001 from two's complement to its equivalent base ten form.

2. Decode 01011001 from the floating-point representation described in class (and on the first weekly note).

3. Encode -11/32 into the floating-point representation described in class (and on the first weekly note).

4. Write a program in the machine language from Appendix C which will read values stored in two memory cells `B1` and `B2`, and then create a new value which is the same as the value in `B2`, except for the fifth and sixth bits (not the two least significant, but the next two) of the value which should to be identical to the two high order bits of `B1`. For example, if 01101100 is in `B1` and 11001100 is in `B2`, then the result should be 11000100. Write the result in memory cell `B3`.